



AMENDMENTS

In the claims:

Claims 1-20 (canceled)

Please add the following new claims:

--21. (New) A method of determining a nucleic acid sequence, said method comprising:

- (a) hybridizing a primer nucleic acid to a single stranded template nucleic acid;
- (b) extending said primer nucleic acid by at least one complementary nucleotide to produce an extension product that includes a 3' cleavable tag, wherein said at least one complementary nucleotide includes a 3' cleavable tag;
- (c) cleaving said 3' cleavable tag from said extension product to produce a cleaved tag not bound to a nucleotide; and
- (d) detecting said cleaved tag away from said extension product.

22. (New) The method according to Claim 21, wherein said primer nucleic acid is extended by a single cdNTP to produce said extension product.

23. (New) The method according to Claim 22, wherein said extension product is produced by a polymerase in the presence of four distinguishable cdNTPs.

24. (New) The method according to Claim 23, wherein said four distinguishable cdNTPs each include a distinguishable cleavable tag.

25. (New) The method according to Claim 21, wherein said primer nucleic acid is extended by an oligonucleotide of at least two nucleotides in length that includes a cleavable tag.

26. (New) The method according to Claim 25, wherein said cleavable tag is a 3' cleavable tag.

27. (New) The method according to Claim 25, wherein said extension product is produced by a ligase in the presence of said oligonucleotide.

28. (New) The method according to Claim 21, wherein said cleavable tag is cleavable by chemical cleavage.

29. (New) The method according to Claim 28, wherein said cleavable tag is an acid cleavable tag.

30. (New) The method according to Claim 28, wherein said cleavable tag is a base cleavable tag.

31. (New) The method according to Claim 21, wherein said cleavable tag is a photocleavable tag.

32. (New) The method according to Claim 21, wherein said cleavable tag is a fluorescent tag.

33. (New) The method according to Claim 21, wherein said cleavable tag is a mass tag.

34. (New) The method according to Claim 21, wherein said steps (a) to (d) are repeated at least once.

35. (New) A kit comprising:

- (a) a primer nucleic acid; and
- (b) reagents for extending said primer nucleic acid by at least one complementary nucleotide to produce an extension product that includes a 3' cleavable tag.

36. (New) The kit according to Claim 35, wherein said reagents comprise at a ligase and at least one oligonucleotide labeled with a 3' cleavable tag.
37. (New) The kit according to Claim 35, wherein said reagents comprise a polymerase and four distinguishably labeled cdNTPs.
38. (New) The kit according to Claim 35, wherein said kit further comprises a cleavage means.
39. (New) The kit according to Claim 35, wherein said kit further comprises a separation means.
40. (New) The kit according to Claim 35, wherein said kit further comprises a detection means.
41. (New) A nucleic acid primer extension product hybridized to a single stranded template nucleic acid, wherein said primer extension product includes a 3' cleavable tag.